

INPUT APPARATUS AND CONTROLLING METHOD THEREOF

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority benefit under 35 U.S.C. §119 of Korean Patent Application No. 10-2015-0131406, filed on Sep. 17, 2015 in the Korean Intellectual Property Office, the disclosure of which is incorporated herein by reference in its entirety.

BACKGROUND

[0002] 1. Field of the Invention

[0003] Apparatuses and methods of exemplary embodiments relate to an input apparatus and a controlling method thereof, and more particularly, to an input apparatus capable of transmitting information required to transmit content stored in a user terminal device to an external device and a controlling method thereof.

[0004] 2. Description of the Related Art

[0005] On the strength of advancement of electronic technology, various types of electronic appliances have been developed and supplied. Especially, various display devices such as a TV, a cell phone, a PC, a laptop, PDA, and the like, are used in most homes. Further, having been equipped with an input apparatus such as a pen when using the various types of electronic appliances makes a user to be able to input data more elaborately and comfortably.

[0006] Conventionally, a wireless networking method or a wire networking method by using a storing device like a USB is used to transmit data to an external device. Although the wireless networking method may seem to be convenient, it has some problems such as it is vulnerable to security, must be connected to a 3G or 4G network, Bluetooth, or a W-Fi network, requires a large sized component for performing networking, and consumes much power.

[0007] Further, the wire networking method may have an advantage over security, but it requires a separate storing device, which is one of biggest weaknesses of the method.

[0008] Accordingly, a need of reinforcing security and transmitting data to an external device without using a separate external device has come to the forefront.

SUMMARY

[0009] An exemplary embodiment addresses at least the above need, and an aspect of the exemplary embodiment is to provide an input apparatus capable of transmitting information required to transmit content selected by an input apparatus to an external device and a controlling method thereof.

[0010] The input apparatus capable of receiving an input according to an exemplary embodiment includes a communicator configured to communicate with the first user terminal device and the second user terminal device and a processor, in response to content being selected from the first user terminal device through the input apparatus and the first predetermined event occurring, configured to receive information about identifier information and an encryption key of the first user terminal device from the first user terminal device and, in response to the second predetermined event occurring, configured to transmit the received information

about the identifier information and the encryption key of the first user terminal device to the second user terminal device.

[0011] The first predetermined event may include an event where a function of transmitting the selected content to an external device is performed in the first user terminal device through the input apparatus, and the second predetermined event may include an event where a function of receiving the selected content from an external device is performed in the second user terminal device through the input apparatus.

[0012] The input apparatus capable of receiving an input according to an exemplary embodiment further includes a function key configured to receive a user manipulation, and the processor, in response to the function key being pressed upon the user manipulation while the input apparatus is located within a predetermined range of distance from a screen of the first user terminal device, may transmit a control signal for displaying the first user interface on a screen of the first user terminal device to the first user terminal device and, in response to the function key being pressed upon the user manipulation while the input apparatus is located within a predetermined range of distance from a screen of the second user terminal device, may transmit a control signal for displaying the second user interface on a screen of the second user terminal device to the second user terminal device.

[0013] The first user interface may include a menu for transmitting the selected content to an external device in the first user terminal device, and the second user interface may include a menu for receiving the selected content from an external device in the second user terminal device.

[0014] The processor, in response to a menu for transmitting the selected content to an external device being selected in the first user interface, may receive information about identifier information and an encryption key of the first user terminal device from the first user terminal device and, in response to a menu for receiving the selected content from the external device being selected in the second user interface, may transmit the received information about the identifier information and the encryption key of the first user terminal device to the second user terminal device.

[0015] The input apparatus capable of receiving an input according to an exemplary embodiment further include a storage, and the processor may store information about identifier information and an encryption key of the first user terminal device received from the first user terminal device at the storage.

[0016] The encryption key may be used for encrypting identifier information of the second user terminal device.

[0017] A system including the input apparatus capable of receiving an input, the first user terminal device, and the second user terminal device, in response to a content being selected from the first user terminal through the input apparatus and the first predetermined event occurring, may receive information about identifier information and an encryption key of the first user terminal device from the first user terminal device and, in response to the second predetermined event occurring, may transmit the received information about the identifier information and the encryption key of the first terminal device to the second user terminal device, and the second user terminal device, based on the received encryption key, may encrypt identifier information of the second user terminal device and transmits the identifier information of the second user terminal device to the